



Chapter 1: Introduction

The Utah Department of Transportation (UDOT) recognizes the importance of the U.S. Highway 40 (US 40) corridor to northeast Utah and is committed to meeting the long-term needs of the public and to ensuring the continued efficiency of this route. UDOT commissioned this report to document the results of a study that addressed the safety, congestion, and operation of US 40 and the economic vitality, environmental, and land-use impacts that affect corridor operation and safety.

The US 40 Corridor Study was planned and reviewed using a collaborative process. UDOT was aided by affected local governments, related agencies, motorists, property owners, and business operators with an interest in the present and future operation of US 40. Throughout the planning and review process, UDOT asked for information from local communities and corridor residents regarding any planned or needed repairs, renovations, or major roadway maintenance activities that could significantly affect the operation of US 40.

The purpose of the US 40 Corridor Study is to develop and prioritize a list of projects that UDOT could implement over the next 30 years. The resulting project lists combine UDOT's vision, goals, and objectives for the corridor with input from residents and other stakeholders. The projects are general in nature and do not include detailed engineering. UDOT expects that, once projects are funded, it will conduct the appropriate environmental reviews and engineering processes. Once more in-depth analyses and planning are completed, UDOT might modify the projects identified in this study based on more specific project information.

Note that the main input for the projects identified in this study came from the people who use US 40 on a daily basis and understand the key issues. UDOT's extensive public involvement program included coordination with local governments, major land managers, oil and gas industry representatives, regulatory agency representatives, and—most importantly—the general public. Through the public involvement program, stakeholders identified specific issues and UDOT turned these issues into projects. UDOT then confirmed the need for these projects with quantitative data such as traffic conditions and accident locations.

UDOT presented the project lists to the public during open houses, which allowed residents and stakeholders to comment on and make suggestions for the content of the lists. At the final open house, the public generally felt that the

project lists captured the key areas that need improvement along US 40 and that UDOT has taken a valuable first step in planning the future of US 40.

1.1 Overview of U.S. Highway 40

US 40 is an east-west United States highway that travels through 12 states from Utah to New Jersey. The U.S. Department of Transportation, Federal Highway Administration (FHWA) identifies US 40 as part of the National Highway System (NHS). The U.S. Department of Transportation includes in the NHS roads that are important for the nation's economy, defense, and mobility. States are encouraged to focus on these high-priority routes and to concentrate on improving them with federal-aid funds.

In Utah, US 40 provides access to areas that support industries that are important to the state's economy, such as oil and gas mining, and to many recreation areas, such as Dinosaur National Monument, Flaming Gorge, national forest land, and Bureau of Land Management land. UDOT is the primary manager of the highway in Utah.

This corridor study focuses on the section of US 40 in Utah between Tammy Lane, just east of Heber City at about Milepost (MP) 21 in Wasatch County, and State Route (SR) 149, just west of Jensen at about MP 157 in Uintah¹ County. The 136-mile-long stretch of road traverses a mountain canyon and Daniels Summit on the west before dropping into the Uintah Basin near Strawberry Reservoir. The road travels through portions of three counties: Wasatch, Duchesne, and Uintah. Figure 1-1, US 40 Study Corridor, shows the extent of the corridor study area.

Ongoing development trends in the Uintah Basin prompted UDOT to initiate this study. UDOT's intent was to develop a plan that identifies, prioritizes, and schedules needed roadway infrastructure improvements to US 40. This report summarizes the existing and future conditions of the US 40 corridor and identifies projects that will address needs over the next 30 years to about 2035.

1.2 Study Process

The project team began the study process by gathering information about the current condition of the 136-mile-long corridor. To focus the data collection and

¹ The word *Uintah* is spelled two different ways, depending on the reference. Most references use *Uintah*, though Wasatch County and the U.S. Forest Service use the spelling *Uinta*, and the river by that name is the *Uinta* River.



analysis, the team divided the corridor into eight segments (see Section 1.3, Corridor Segments, for a description). Data were collected on existing road conditions, such as right-of-way width and passing lane locations; recent accident histories; existing environmental conditions, such as the presence of sensitive species or habitats; current traffic volumes; and current trucking patterns along the corridor.

UDOT sought input from corridor stakeholders and the public during this information-gathering process as a way to verify and supplement the data and to help shape the agency's vision and goals for the corridor. The result of data gathering and public input was a list of issues and problem areas along US 40. This report summarizes the data gathered, the public involvement process, and the proposed solutions by segment.

During the study process, representatives of several cities along the corridor requested that the evaluation should consider having US 40 bypass the cities as a way to reduce traffic in downtown areas. Because the US 40 Corridor Study is intended to focus on the existing US 40 mainline, the evaluation of bypasses is outside the scope of the study. Cities were instead encouraged to independently evaluate bypasses. This corridor study addresses some of the issues that contribute to local congestion, but does not propose any off-route solutions. Even though bypasses were not included in this corridor study, UDOT and the cities can still partner to address truck routing issues.

1.2.1 National Environmental Policy Act Coordination

This corridor study does not include analysis in support of the National Environmental Policy Act (NEPA) requirements. UDOT will conduct NEPA analyses of future projects identified in this report on a case-by-case basis as project planning progresses and as needed.

Projects that are planned and/or constructed using federal funds or that require federal approval must comply with the provisions of NEPA. NEPA requires an analysis of a proposed action and the disclosure of impacts to the natural and human environments that could occur as a result of project construction. A responsible federal agency leads a NEPA analysis, though other agencies can cooperate with the lead agency if a project might affect resources under their jurisdiction(s). Typically, FHWA is the lead agency for NEPA analyses involving roadway projects that receive federal transportation funds. In the case of US 40, FHWA also has NEPA authority over actions that require functional classification actions (23 Code of Federal Regulations [CFR] 470A).

1.3 Corridor Segments

This study focuses on eight distinct segments along the corridor (see Figure 1-2, US 40 Corridor Study Segments). The segments were selected based on general land-use patterns and geographic location. The segments are described below.

Segment 1: Project Start (MP 21) to Daniels Summit (MP 34). This 13-mile-long segment passes through mostly undeveloped land in Wasatch County and travels the length of Daniels Canyon. Most land along the roadway is managed by the U.S. Forest Service (USFS).

Segment 2: Daniels Summit (MP 34) to the Western Duchesne City Limit (MP 86). This segment, which is 52 miles long, passes through mostly undeveloped land in Wasatch and Duchesne Counties. Most land between Daniels Summit and Strawberry Reservoir is managed by USFS, though there is some private recreational development around the reservoir. Between the eastern side of the reservoir and western Duchesne County, the corridor passes through state-owned land (wildlife management areas) and private land. Most of the land between the Wasatch County–Duchesne County line and the city of Duchesne is privately owned, with the exception of land around Starvation Reservoir, which is managed as a state park.

Segment 3: Incorporated Area of Duchesne (MPs 86 to 88). This 2-mile-long segment in Duchesne County consists of that portion of the corridor within the Duchesne city limits. Development is typical of that found in rural towns. The land along the highway is primarily dedicated to commercial uses, though there is some residential and industrial development. Duchesne High School is located on the highway at MP 86.3.

Segment 4: Eastern Limit of Duchesne (MP 88) to the Western Limit of Roosevelt (MP 112). This 24-mile-long segment covers an area dominated by private and tribal land. This area supports some agricultural production and limited oil and gas development. The segment is entirely within Duchesne County.

Segment 5: Roosevelt and Ballard Incorporated Areas (MPs 112 to 119). This segment, which is 7 miles long, encompasses the area within the incorporated limits of the cities of Roosevelt and Ballard. The Duchesne County–Uintah County line marks the political division between Roosevelt and Ballard, but the area functions as a single, more urbanized area. Development along US 40 is dominated by commercial uses, though there is some residential development interspersed along the segment. Todd Elementary School and Union High School are situated on the south side of US 40 at MP 115.3.



Segment 6: Eastern Limit of Ballard (MP 119) to the Western Limit of Vernal (MP 142). This 23-mile-long segment is characterized by tribal land and private land in the western half and by state-owned land and land administered by the Bureau of Land Management (BLM) in the eastern half. There is some oil-and-gas-related development along the highway, though most wells are south of US 40 on tribal and BLM-administered land. This segment is entirely within Uintah County.

Segment 7: Vernal and Naples Incorporated Areas (MPs 142 to 149). This 7-mile-long segment is dominated by the urban development normally associated with rural cities. Commercial and industrial development is present immediately adjacent to the highway, with limited residential development interspersed throughout.

Segment 8: Eastern Limit of Naples (MP 149) to Project End (MP 157). This segment, which is 8 miles long, is mostly under private ownership and is characterized by rural residential and agricultural development. State-owned land abuts the highway just west of Jensen and supports some oil and gas wells.

1.4 Corridor Vision, Goals, and Objectives

As part of the corridor study process, UDOT formed a vision for the US 40 corridor and identified goals and objectives that support this vision.

1.4.1 Vision

The US 40 corridor will provide a safe travel route for local, regional, and through traffic to meet private and commercial needs.

- The corridor design will accommodate the needs of all travel types including passenger vehicles, recreational vehicles, bicycles, and pedestrians, as well as the unique design and construction requirements of large trucks that serve the expanding oil and gas industry in the Uintah Basin.
- The corridor will have enough capacity to minimize congestion and facilitate safe passing of vehicles on hills and in congested areas.
- Corridor intersections will be designed and constructed to accommodate safe access onto and off of the corridor for all vehicle types and sizes, especially those intersections used by large trucks to access oil and gas development and mining sites.
- The corridor will be designed and managed to minimize impacts to the adjacent natural, historical, cultural, physical, and human environments.

1.4.2 Goals and Objectives

Safety: Provide a safe transportation facility for all modes of travel.

Objectives:

- Provide an adequate number and length of passing lanes.
- Provide an adequate number of pull-offs to meet traveler emergency needs.
- Provide adequate intersection treatments at congested intersections.
- Stripe and sign the roadway to guide and encourage safe passing.
- Provide for vehicle speed management and enforcement.
- Provide bicycle and pedestrian facilities that safely accommodate demand.
- Use intelligent transportation system (ITS) technology.

Capacity and Congestion: Provide enough capacity to minimize delay throughout the corridor through 2030.

Objectives:

- Provide an adequate number of travel lanes to minimize congestion.
- Provide dedicated turn lanes where traffic volumes cause congestion or unsafe conditions.

Design and Operation: Provide roadway improvements to safely and efficiently move vehicles and to accommodate movement along US 40 for all vehicle types.

Objectives:

- Provide an adequate shoulder width to meet standards, where appropriate.
- Provide sufficient intersection geometrics for all vehicle types.
- Provide traffic signals, where warranted.
- Provide adequate sight distance to facilitate safe access to and from the corridor.



Growth and Development: Provide corridor roadway improvements with adequate access to support the traffic demands of current and planned land uses (commercial, industrial, recreation-related) throughout the corridor.

Objective:

- Facilitate appropriate access control and management.

Environment: Provide a context-sensitive solution and minimize the environmental impacts to the natural and built environments along the corridor.

Objectives:

- Address roadway stormwater runoff control.
- Avoid and/or minimize impacts to adjacent wetlands.
- Avoid and/or minimize impacts to adjacent natural, physical, archeological, historical, cultural, and human resources.

Oil and Gas Industry Demands: Address traffic demands and unique roadway design needs generated by the oil and gas industry.

Objective:

- Design and maintain the roadway to withstand the impacts of commercial truck traffic.

Economic Development, Tourism, and Recreational Demands: Support current and future economic development, tourism, and recreation in the region.

Objectives:

- Provide necessary and appropriate signage to meet directional and informational needs.
- Facilitate the construction of west-end corridor restroom facilities to meet seasonal travel demand.

1.5 Document Organization

This corridor study report includes the following chapters:

- Chapter 1: Introduction
- Chapter 2: General Description of the Study Corridor
- Chapter 3: Study Corridor Segment Details
- Chapter 4: Public Involvement
- Chapter 5: Project and Policy Recommendations
- Chapter 6: Implementation Plan and Cost Estimates
- Chapter 7: References

1.5.1 Supporting Documents

This corridor study report incorporates information from the following supporting documents:

- *Technical Report of Existing Environmental Conditions in Support of the US 40 Corridor Study*; prepared by HDR Engineering, Inc., June 2007
- *US 40 Corridor Study Crash History and Analysis in Support of the US 40 Corridor Study*; prepared by HDR Engineering, Inc., June 2007
- *Existing Facility Conditions Report in Support of the US 40 Corridor Study*; prepared by HDR Engineering, Inc., July 2007
- *Oil and Gas Truck Traffic Impacts on US 40 Corridor, Utah, in Support of the US 40 Corridor Study*; prepared by HDR Engineering, Inc., July 2007

These documents are attached to this report as Appendix A, Supporting Technical Studies.

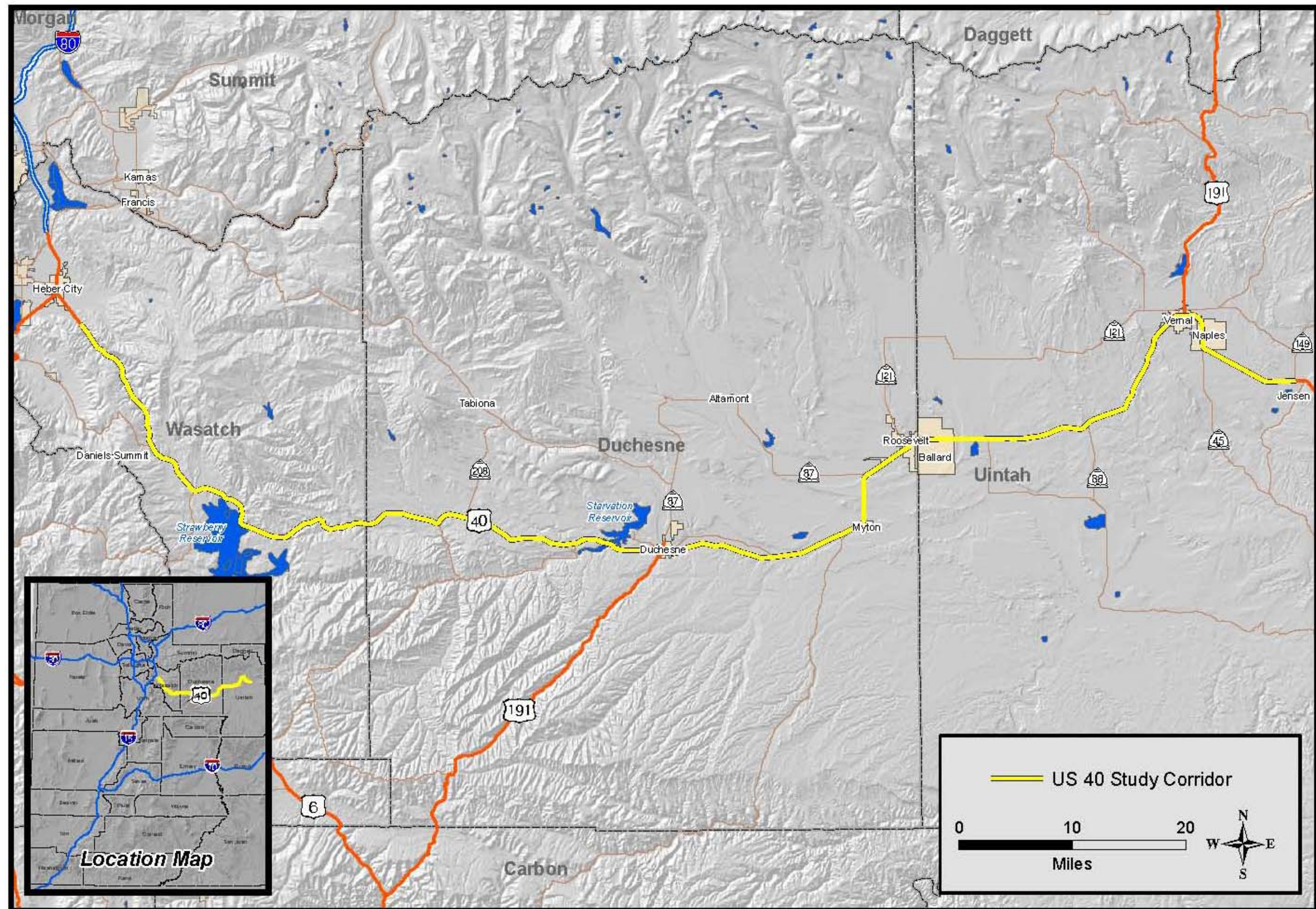


Figure 1-1. US 40 Study Corridor

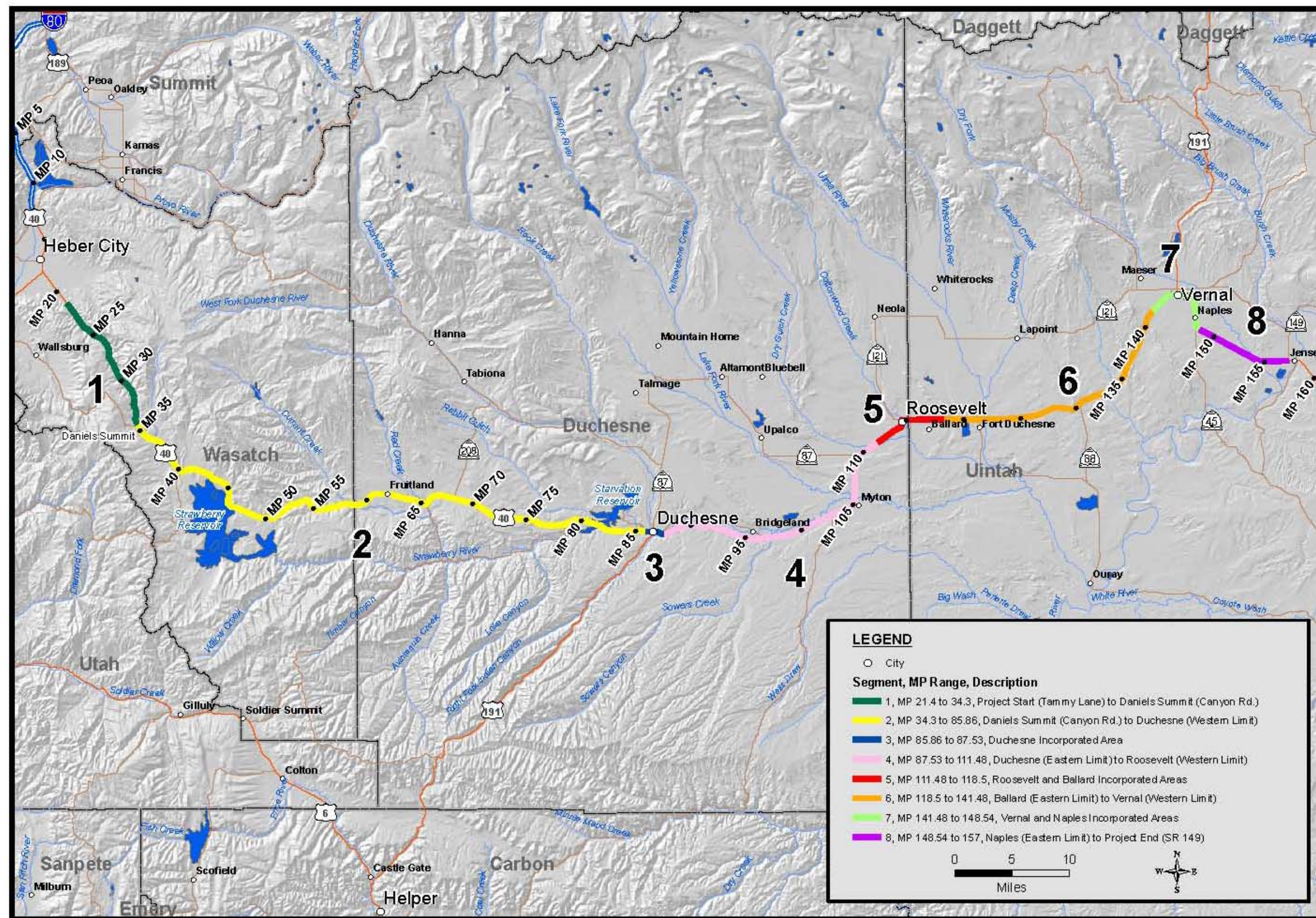


Figure 1-2. US 40 Corridor Study Segments